

WHAT IS CLAIMED IS:

1. An everyday language-based computing system comprising a language computer for processing a language text described or dictated by an everyday language,

said language computer having a semiotic base, in which a system of meanings of the everyday language is structured, and a meaning processing mechanism for understanding a meaning of a language text and generating a language text on the basis of said semiotic base.

2. An everyday language-based computing system as set forth in claim 1, wherein said semiotic base of said language computer has an electronic dictionary for holding a plurality of dictionary items including lexico-grammatical information and semantic information, a lexico-grammar base for systematically holding a plurality of lexico-grammatical features of a language and a plurality of semantic roles corresponding thereto, and a meaning base for systematically holding a plurality of semantic features of a language and a plurality of semantic roles corresponding thereto, said lexico-grammatical features held in said lexico-grammar base and said semantic features held in said meaning base being associated with said lexico-grammatical information and semantic information of each of said dictionary items held in said electronic dictionary, respectively,

said meaning processing mechanism of said language computer refers to said electronic dictionary, said lexico-grammar base and said meaning base, to identify a semantic role corresponding to a lexico-grammatical feature of a character string which is included in a language text serving as an object to be processed, and to identify a semantic feature corresponding to the identified semantic role, so that said meaning processing mechanism understands a meaning of the language text on the basis of the identified semantic feature.

3. An everyday language-based computing system as set

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forth in claim 2, wherein said semiotic base of said language computer further includes a situation base for systematically holding a plurality of situation types indicative of a situation, in which a language is used, and a plurality of situation features corresponding thereto, both of said lexico-grammar base and said meaning base holding a plurality of registers of a language, which are associated with the situation types held in said situation base,

said meaning processing mechanism of said language computer refers to said meaning base, said lexico-grammar base and said situation base, to identify a situation type corresponding to a register of a lexico-grammatical feature of a character string which is included in a language text serving as an object to be processed, to identify a register of a semantic feature corresponding to the identified situation type, and to identify a semantic feature corresponding to the identified semantic role within the identified register of semantic feature, so that said meaning processing mechanism understands a meaning of the language text on the basis of the identified semantic feature.

4. An everyday language-based computing system as set forth in claim 1, wherein said semiotic base of said language computer further includes a corpus for holding a plurality of language texts serving as examples of exchange of a language, together with a plurality of semantic features of a language, and

said meaning processing mechanism of said language computer refers to said corpus, to retrieve an example of a language text, which is analogous to a language text serving as an object to be processed, so that said processing mechanism understands a meaning of the language text on the basis of a semantic feature of the retrieved example of the language text.

5. An everyday language-based computing system as set forth in claim 1, wherein said semiotic base of said language

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computer has a situation base for systematically holding a plurality of situation types indicative of a situation, in which a language is used, and a plurality of situation features corresponding thereto, a meaning base for systematically holding a plurality of semantic features of a language and a plurality of semantic roles corresponding thereto, and a corpus for holding a plurality of language texts serving as examples of exchange of a language, together with the situation features and semantic features of a language, said situation base further holding a plurality of generic structures of text corresponding to said situation types, and said meaning base further holding a plurality of registers of a language, which are associated with the situation types held in said situation base, and a plurality of global plan templates which are associated with the generic structures of text held in said situation base,

said meaning processing mechanism of said language computer refers to said situation base and said meaning base, to identify a global plan template, which is relevant to a generic structure of text corresponding to a situation type during generation of a language text, and to prepare a local plan on the basis of the identified global plan template and of a predefined semantic feature, so that said meaning processing mechanism generates a language text on the basis of the prepared local plan and the examples of the language texts held in said corpus.

6. An everyday language-based computing system as set forth in claim 5, wherein said semiotic base of said language computer further includes a lexico-grammar base for systematically holding a plurality of lexico-grammatical features of a language and a plurality of semantic roles corresponding thereto, said lexico-grammar base holding a plurality of registers of a language, which are associated with said situation types held in said situation base, and said corpus holding a plurality of language texts serving as examples of exchange of a language, together with the

situation features, semantic features and lexico-grammatical features of a language,

said meaning processing mechanism of said language computer refers to said meaning base to identify a semantic role corresponding to a semantic feature included in said local plan, and refers to said lexico-grammar base, to identify a register of a lexico-grammatical feature corresponding to a situation type during generation of a language text, and to identify a lexico-grammatical feature corresponding to the identified semantic role within the register of the identified lexico-grammatical feature, so that said meaning processing mechanism of said language computer generates a language text on the basis of the identified lexico-grammatical feature, said local plan and the examples of the language texts held in said corpus.

7. An everyday language-based computing system as set forth in claim 6, wherein said semiotic base of said language computer further includes an electronic dictionary for holding a plurality of dictionary items including lexico-grammatical information and semantic information, said lexico-grammatical features held in said lexico-grammar base and said semantic features held in said meaning base being associated with said lexico-grammatical information and said semantic information of each of said dictionary items held in said electronic dictionary, respectively,

said meaning processing mechanism of said language computer refers to said electronic dictionary to output a dictionary item including the semantic feature included in said local plan and the identified lexico-grammatical feature, and refers to said lexico-grammar base to combine the identified lexico-grammatical feature with the outputted dictionary item, so that said meaning processing mechanism of said language computer generates a language text.

8. An everyday language-based computing system as set forth in claim 1, further comprising a language operating

system for managing said language computer by an everyday language.

9. An everyday language-based computing system as set forth in claim 8, wherein said language operating system has a secretary agent for interactively exchanging a language text between a user and said language computer.

10. An everyday language-based computing system as set forth in claim 9, wherein said secretary agent is prepared as a plurality of candidates of secretary agents every specialized domain, and a desired candidate of secretary agent is selected by an instruction from the user.

11. An everyday language-based computing system as set forth in claim 9 or 10, wherein said language operating system further includes a knowledge base which is managed by said secretary agent.

12. An everyday language-based computing system as set forth in claim 11, wherein said knowledge base is associated with said semiotic base of said language computer.

13. An everyday language-based computing system as set forth in claim 9, wherein said language operating system has a user interface for personifying said secretary agent to present the personified secretary agent together with a virtual space which is prepared by simulating a user's accommodation space.

14. An everyday language-based computing system as set forth in claim 13, wherein said user interface is set in a desired form by an instruction from the user.

15. An everyday language-based computing system as set forth in claim 8, wherein said language operating system manages a process relating to a processing of a language text

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on said language computer.

16. An everyday language-based computing system as set forth in claim 8, wherein said language operating system manages a language file including a language text.

17. An everyday language-based computing system as set forth in claim 8, wherein said language operating system exchanges language data from and to another everyday language-based computing system.

18. An everyday language-based computing system as set forth in claim 17, wherein said language data include language text data and data indicative of the meaning thereof.

19. An everyday language-based computing system as set forth in claim 1, wherein said language computer is a virtual machine which is realized on the existing platform.

20. An everyday language-based computing system as set forth in claim 8, wherein said language computer further includes a language resource for providing various services by an instruction from said language operating system, said language resource having a resource body operated on the existing platform, and a language interface for connecting the resource body to a command based on a language of said language operating system.

21. An everyday language-based computing system comprising:

- a client computing system; and

- a network computing system connected to said client computing system,

- said client computing system including a client language computer for processing a language text described or dictated by an everyday language, and a client-oriented language operating system for managing said client language

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computer by the everyday language,

said network computing system including a network language computer for processing a language text which is exchanged from and to said client computing system, and a network-oriented language operating system for exchanging language data from and to said client computing system and for managing said network language computer by the everyday language, and

said client-oriented language operating system and said network-oriented language operating system exchanging language data therebetween in accordance with a language communication protocol.

22. An everyday language-based computing system as set forth in claim 21, wherein said language data exchanged in accordance with said language communication protocol include language text data and data indicative of the meaning thereof.

23. An everyday language-based computing system as set forth in claim 21, wherein said client language computer includes a client semiotic base which is provided by structuring a system of meanings of the everyday language, and a client meaning processing mechanism for understanding a meaning of a language text and generating a language text on the basis of said client semiotic base, and said network language computer includes a network semiotic base provided by structuring a system of meanings of the everyday language, and a network meaning processing mechanism for understanding a meaning of a language text and generating a language text on the basis of said network semiotic base,

said client semiotic base and said network semiotic base being associated with each other under control of said client-oriented language operating system and said network-oriented language operating system.

24. An everyday language-based computing system as set forth in claim 21, wherein said client-oriented language

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operating system has a secretary agent for interactively exchanging a language text between a user and said client language computer, and said network-oriented language operating system has a network manager agent for exchanging a language text from and to said secretary agent and for managing said network language computer.

25. An everyday language-based computing system as set forth in claim 24, wherein said client-oriented language operating system further includes a client knowledge base which is managed by said secretary agent, and said network-oriented language operating system further includes a network knowledge base which is managed by said network manager agent, said client knowledge base and said network knowledge base being associated with each other under control of said secretary agent and said network manager agent.

26. An everyday language-based computing system as set forth in claim 21, wherein said network-oriented language operating system manages a process relating to a processing of a language text which is exchanged from and to said client computing system.

27. An everyday language-based computing system as set forth in claim 21, wherein said network-oriented language operating system manages a language file including a language text which is exchanged from and to said client computing system.

28. An everyday language computing method of processing a language text described or dictated by an everyday language to understand a meaning of a language text, by referring to a semiotic base, said semiotic base including an electronic dictionary for holding a plurality of dictionary items including lexico-grammatical information and semantic information, a lexico-grammar base for systematically holding a plurality of lexico-grammatical features of a

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language and a plurality of semantic roles corresponding thereto, and a semantic base for systematically holding a plurality of semantic features of a language and a plurality of semantic roles corresponding thereto, wherein said lexico-grammatical features held in said lexico-grammatical base and said semantic features held in said meaning base are associated with the lexico-grammatical information and the semantic information of each of said dictionary items held in said electronic dictionary, respectively, said everyday language computing method comprising the steps of:

referring to said electronic dictionary to carry out a parsing and a parsing to identify a lexico-grammatical feature of a character string which is included in a language text serving as an object to be processed;

referring to said lexico-grammar base to identify a semantic role corresponding to the identified lexico-grammatical feature;

referring to said electronic dictionary to output a dictionary item including the identified lexico-grammatical feature;

referring to said semantic base to extract semantic information which is included in the outputted dictionary item; and

identifying a semantic feature corresponding to the identified semantic role to understand a meaning of the language text, on the basis of the extracted semantic information.

29. An everyday language computing method as set forth in claim 28, wherein said semiotic base further includes a situation base for systematically holding a plurality of situation types indicative of a situation, in which a language is used, and a plurality of situation features corresponding thereto, both of said lexico-grammar base and said meaning base holding a plurality of registers of a language, which are associated with the situation types held in said situation base,

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further comprising the steps of:

referring to said situation base and said lexico-grammar base to identify a situation type corresponding to a register of a lexico-grammatical feature of a character string which is included in a language text serving as an object to be processed; and

referring to said situation base and said meaning base to identify a register of a semantic feature corresponding to the identified situation type,

wherein a semantic feature corresponding to the identified semantic role is identified to understand a meaning of the language text within the register of the identified semantic feature.

30. An everyday language computing method of generating a language text described or dictated by an everyday language, by referring to a semiotic base, said semiotic base including a situation base for systematically holding a plurality of situation types indicative of a situation, in which a language is used, and a plurality of situation features corresponding thereto, a meaning base for systematically holding a plurality of semantic features of a language and a plurality of semantic roles corresponding thereto, and a corpus for holding a plurality of language texts serving as examples of exchange of a language, together with the situation features and semantic features of a language, said situation base further holding a plurality of generic structures of text corresponding to said situation types, and said meaning base further holding a plurality of registers of a language, which are associated with the situation types held in said situation base, and a plurality of global plan templates which are associated with the generic structures of text held in said situation base, said everyday language computing method comprising the steps of:

referring to said situation base and said meaning base to identify a global plan template which is relevant to a generic structure of text corresponding to a situation type

during generation of a language text;

referring to said meaning base to prepare a local plan on the basis of the identified global plan template and a predefined semantic feature; and

generating a language text on the basis of the prepared local plan and the examples of the language texts held in said corpus.

31. An everyday language computing method as set forth in claim 30, wherein said semiotic base further includes a lexico-grammar base for systematically holding a plurality of lexico-grammatical features of a language and a plurality of semantic roles corresponding thereto, said lexico-grammar base holding a plurality of registers of a language, which are associated with the situation types held in said situation base, said corpus holding a plurality of language texts serving as examples of exchange of a language, together with the situation features, semantic features and lexico-grammatical features of a language,

further comprises the steps of:

referring to said lexico-grammar base to identify a register of a lexico-grammatical feature corresponding to a situation type during generation of a language text;

referring to said semantic base to identify a semantic role corresponding to a semantic feature which is included in said local plan; and

referring to said lexico-grammatical base to identify a lexico-grammatical feature corresponding to the identified semantic role within the identified register of the lexico-grammatical feature,

wherein a language text is generated on the basis of the identified lexico-grammatical feature, said local plan, and the examples of the language texts held in said corpus.

32. An everyday language computing method as set forth in claim 31, wherein said semiotic base further includes an electronic dictionary for holding a plurality of dictionary

items including lexico-grammatical information and semantic information, and lexico-grammatical features held in said lexico-grammar base and semantic features held in said meaning base are associated with lexico-grammatical information and semantic information of each of said dictionary items held in said electronic dictionary, respectively,

further comprising the steps of:

referring to said electronic dictionary to output a dictionary item including the semantic feature, which is included in said local plan, and the identified lexico-grammatical feature; and

referring to said lexico-grammar base to combine the identified lexico-grammatical feature with the outputted dictionary item,

wherein a language text is generated by the combination of the identified lexico-grammatical feature with the outputted dictionary item.

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